TITLE: Pyridine derivatives and analogs useful as vitronectin receptor antagonists

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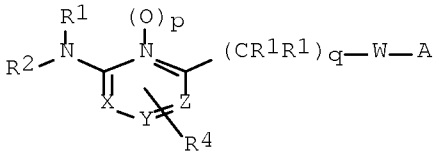
WO 9724122	A1	19970710	WO 1996-US20744	19961220 <--
W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AZ, BY, KZ, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2241724	A1	19970710	CA 1996-2241724	19961220 <--
AU 9713538	A	19970728	AU 1997-13538	19961220 <--
EP 895475	A1	19990210	EP 1996-945085	19961220 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
CN 1209060	A	19990224	CN 1996-180099	19961220 <--
BR 9612378	A	19990713	BR 1996-12378	19961220 <--
JP 2000502708	T	20000307	JP 1997-524556	19961220 <--
HU 9901116	A2	20000328	HU 1999-1116	19961220 <--
ZA 9610855	A	19971124	ZA 1996-10855	19961223 <--
NO 9803002	A	19980826	NO 1998-3002	19980626 <--
US 2001034445	A1	20011025	US 2001-769125	20010124 <--

PRIORITY APPLN. INFO.:		US 1995-9532P	P	19951229 <--
		WO 1996-US20744	W	19961220 <--
		US 1998-91936	B1	19981203 <--

OTHER SOURCE(S): MARPAT 127:149074

GI



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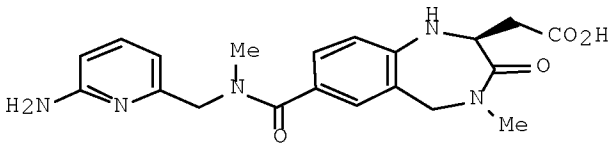


II

AB Title compds. I [A = fibrinogen antagonist template; W = (CHR3)nU(CHR3)mV; X, Y, Z = N or CR4, provided that at most one is N; R1 = H, alkyl, cycloalkyl(alkyl), aryl(alkyl); R2 = R1, COR1, CO2R1; R3 = H, alkyl, heterocyclyl(alkyl), cycloalkyl(alkyl), aryl(alkyl); R4 = H, halo, OR3, SR3, cyano, (un)substituted NH2, etc.; U, V = bond, CO, CR3R3, S, SO, SO2, O, NR3, etc.; n, m = 0, 1, 2; p, q = 0, 1; with addnl. provisos] are disclosed. The compds. are vitronectin receptor antagonists, useful in the treatment of osteoporosis and other conditions. I are said to inhibit binding of SKF 107260 to vitronectin receptor in vitro at 0.01 to 25 μM, with some compds. showing at least a 4-fold (and in some cases 10-fold) greater affinity for vitronectin receptor over fibrinogen receptor. Examples include prepns. of 35 title compds., with characterizing data for 4 of them. For instance, amidation of 6-[(methylamino)methyl]-2-pyridinamine with the corresponding carboxybenzodiazepineacetate derivative, and saponification of the product with LiOH in aqueous THF, gave title compound II.

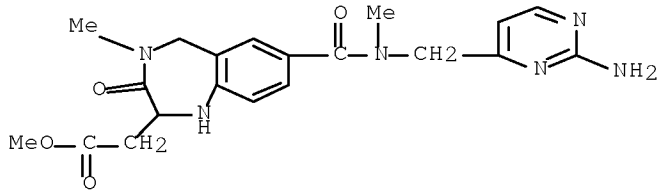
IT 193470-38-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of pyridine derivs. and analogs as vitronectin receptor antagonists)

RN 193470-38-1 ZCAPLUS

CN 1H-1,4-Benzodiazepine-2-acetic acid, 7-[[[(2-amino-4-pyrimidinyl)methyl]methylamino]carbonyl]-2,3,4,5-tetrahydro-4-methyl-3-oxo-, methyl ester (CA INDEX NAME)



IT 193469-87-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridine derivs. and analogs as vitronectin receptor antagonists)

RN 193469-87-3 ZCAPLUS

CN 1H-1,4-Benzodiazepine-2-acetic acid, 7-[[[(2-amino-4-pyrimidinyl)methyl]methylamino]carbonyl]-2,3,4,5-tetrahydro-4-methyl-3-oxo- (CA INDEX NAME)